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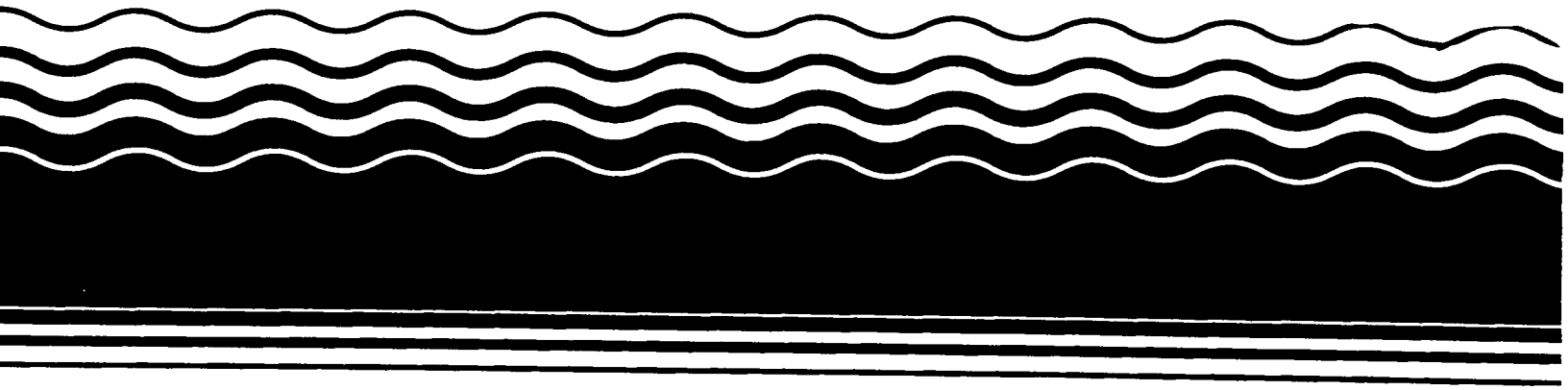
EPA Superfund
Record of Decision Amendment:

Marzone Inc./Chevron Chemical Co.
Tifton, GA
6/18/1997



AMENDED RECORD OF DECISION

SUMMARY OF REMEDIAL ALTERNATIVE SELECTION

MARZONE INC./CHEVRON CHEMICAL COMPANY SITE

OPERABLE UNIT ONE

TIFTON, TIFT COUNTY, GEORGIA

PREPARED BY

U. S. ENVIRONMENTAL PROTECTION AGENCY

REGION IV

ATLANTA, GEORGIA

DECLARATION
of the
AMENDED RECORD OF DECISION

SITE NAME AND LOCATION

Marzone Inc./Chevron Chemical Company Site,
Tifton, Tift County, Georgia

STATEMENT OF BASIS AND PURPOSE

This decision document (Amended Record of Decision) presents an amendment to the selected remedial action for the Marzone Inc./ Chevron Chemical Company Site, Tift County, Georgia, developed in accordance with the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA), as amended by the Superfund Amendments and Reauthorization Act of 1986 (SARA) 42 U.S.C. Section 9601 et seq., and in accordance with, the National Contingency Plan (NCP) 40 CFR Part 300.

The original selected remedy was signed in September 1994. Based on new information obtained during the Remedial Design, it was determined that the soil remedy should be amended. This ROD Amendment provides for necessary changes to the remedy to increase the protectiveness or effectiveness of the remedy. This ROD amendment is consistent with the Superfund Administrative Reforms Guidance.

This amended decision is based on the administrative record for the Marzone Inc./Chevron Chemical Company Site. In addition, this ROD amendment will become a part of the Administrative Record for the site. The Administrative Record for this site can be found at the Information Repository located at the United States Environmental Protection Agency, 100 Alabama Street, Atlanta, Georgia 30303 or the Tifton and Tift County Library, One Library Lane, Tifton, Georgia.

The State of Georgia has concurred on this amendment to the selected remedy (Appendix B).

ASSESSMENT OF THE SITE

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this ROD amendment, may present an imminent and substantial endangerment to public health, welfare or the environment.

DESCRIPTION OF SELECTED REMEDY

This document is an amendment to the remedial action described in the Record of Decision (ROD) dated September 30, 1994 for Operable Unit One of the Site. The function of the remedy, as described in the ROD as amended, is to remove or treat contamination and reduce it to health based levels which are protective of human health and the environment. Contaminated soils and groundwater are the principal threats at the site.

The groundwater remedy remains unchanged. The major components still include:

- The implementation of institutional controls,
- The design and construction of groundwater extraction wells,
- The installation of a security fence around the on-site treatment unit,
- The design and installation of a groundwater pumping system, a groundwater filtration system, an on-site treatment system, and an infiltration gallery,
- The start-up and operation of this system,
- The transportation, regeneration, recycling, and disposal of the spent filters, and
- The operation and maintenance of a long-term groundwater monitoring program. This includes periodic monitoring of parameters in extraction wells and specified monitoring wells.

The major components of the amended soil remedy are:

- The excavation of all surface soil contamination (exclusive of the former burn pit area) above the performance standards,
- The excavation of subsurface soil to meet performance standards on a site-wide basis and, thus, achieve protection of groundwater,
- The transportation of the soil from the main portion of the site (exclusive of the former burn pit area) to a permitted landfill for offsite disposal,
- The placement of clean fill soil in the excavated areas, and
- Air monitoring to ensure safety of nearby residents and workers.

STATUTORY DETERMINATIONS

The selected remedy, as amended, is protective of human health and the environment, complies with federal and state requirements that are legally applicable or relevant and appropriate, and is cost-effective. This remedy utilizes permanent solutions and alternative treatment technology to the maximum extent practicable, and satisfies the statutory preference for remedies that employ treatment that reduces toxicity, mobility, or volume as a principal element.

Richard D. Green
Acting Director,
Waste Management Division

18 JUN 97

Date

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AMENDED RECORD OF DECISION

The Decision Summary
Marzone Inc./Chevron Chemical Company Site

1.0 Site Name, Location, and Description

The Marzone, Inc./Chevron Chemical Company Site (hereinafter the Marzone Site or the Site) is located in south-central Georgia in the City of Tifton, at the intersection of Golden Road and Norfolk Southern Railroad (Figure 1). The Site consists of two separate study areas called operable units (OUs). This Record of Decision covers OU1. OU1 consists of the former pesticide production area, a part of the property adjacent to the former formulation area, and part of the adjacent railroad drainage ditch.

Although the property is accessible from all directions, the only roadway access is from Golden Road which borders the property to the north. Across Golden Road to the north is a former lumber mill. To the west of the property is an active railroad and a former wood treating facility. To the east and south is residential property, which includes an open barn and horse pasture; a live-in trailer is also present. A municipal drinking water supply well is located less than 100 yards to the northwest. Farther to the north and west of this well is a residential area. Also, approximately 500 feet east of OU1 of the Site is a red brick house.

Bordering the southern portion of OU1 of the Marzone Site was a former shed and planing mill. Further south of the former production area was a former burn pit area used to burn planing mill wastes. Beyond the former burn pit area to the southeast is the Golden Seed property where a former fertilizer facility was operated. Currently EPA is performing a fund-lead remedial investigation and feasibility study on Operable Unit 2 which includes the Golden Seed Property.

Existing features on OU1 of the Marzone Site include the north and south warehouse buildings. A drainage ditch, referred to as the "railroad drainage ditch," runs along portions of the Norfolk Southern Railroad and the railroad spur south and southeast of the Site. Former features included a drum storage area, a liquid formulation area, a vertical chemical storage tank, an adjacent tank pad which supported above-ground chemical tanks, a loading dock area, and an asphalt parking area and concrete slab (Figure 2). Additional features on OU1 included a rinsate pond (lagoon) in the southeast portion, and a former truck loading area in the eastern portion. A drainage ditch ran along the southern boundary and was referred to as the "south drainage ditch."

2.0 Site History and Enforcement Activities

The pesticide formulation facility was developed in 1950 and operated as such until January 1983. After 1983, OU1 of the Site was used primarily for general storage and plant seedling distribution, as well as vegetable washing and repackaging activities. Currently, no operations exist on OU1 of the Marzone Site.

From 1950 to 1970, Chevron Chemical Company operated a pesticide formulating plant at OU1 of the Site. From 1950 to about 1960, Chevron formulated dry pesticide dusts and in 1960 liquid formulation was added. The liquid formulation used xylene and xylene-based mixtures as carrier liquids. Bulk chemical handling facilities operated during these years included unpaved railcar and truck loading areas for base materials and finished products; bulk liquids were unloaded by tanker truck into vertical aboveground storage tanks. Only the western portion of the current building was in existence. The remainder of OU1 was unpaved. In 1970, Chevron sold the facility to Mr. Billy Mitchell who founded the Tifton Chemical Company which formulated and marketed liquid and dry pesticides similar to Chevron's. These included DDT, toxaphene, parathion, methyl parathion, malathion, and chlordane; Tifton Chemical Company also produced sulfur-based products.

Tifton Chemicals sold the operation in 1977 to Tifchem Products, Inc. Inspections made by the Georgia Department of Natural Resources (GaDNR) indicated repeated rinsate discharges to unlined drainage ditches leading to the former rinsate pond (lagoon) located at the southeast corner of the property, off-site discharges, and poor housekeeping practices inside and around the buildings. It is likely that Tifchem formulated common organophosphate and organochlorine pesticides. GaDNR records mention atrazine, endrin, and toxaphene in connection with this operation. Tifchem defaulted to the Farmer's Bank of Tifton in 1979 leaving large quantities of pesticides on-site.

Marzone Chemical Company (Marzone) purchased the property in January 1980, and operated it as a pesticide formulating facility until September 1982. Marzone reportedly formulated methyl and ethyl parathion, toxaphene, lindane, DDT, chlordane, Sevin, atrazine, malathion, and heptachlor at the Site. Prior to operation, Marzone was required by the GaDNR to remove the estimated 70,000 pounds of pesticides which remained at the Site

from the Tifchem operation. GaEPD also required Marzone to close the rinsate pond (lagoon) and replace it with a system resulting in zero discharge. The pond water and sludge reportedly were disposed at the Pinewood disposal facility in South Carolina.

In 1983, regular commercial operation of the Site ceased when Kova Fertilizer, Inc. (Kova) acquired the property in a foreclosure. A GaEPD inspection of the Site, following Kova's acquisition, identified open drums of pesticides and pesticide wastes on-site. In 1984, a notice of violation was issued and the GaEPD required Kova to remove all hazardous waste, contaminated soil, and debris from the Site within 45 days. Kova manifested 49 drums of pesticide waste for off-site disposal by Chemical Waste Management. In May 1985, ownership was transferred to Kova of Georgia.

In August 1985, the Site was purchased by Milan, Inc., the current owner of the Site. The Site has been used for general storage, plant seedling distribution, and vegetable washing and repackaging. A fence to secure the Site was added in May 1993.

To date a number of Removal Actions have been taken at the Site. Records of the Georgia Environmental Protection Division (GaEPD) identified concerns at the Site as early as 1973. In 1979, Marzone, Inc. in response to a GaEPD compliance order, removed

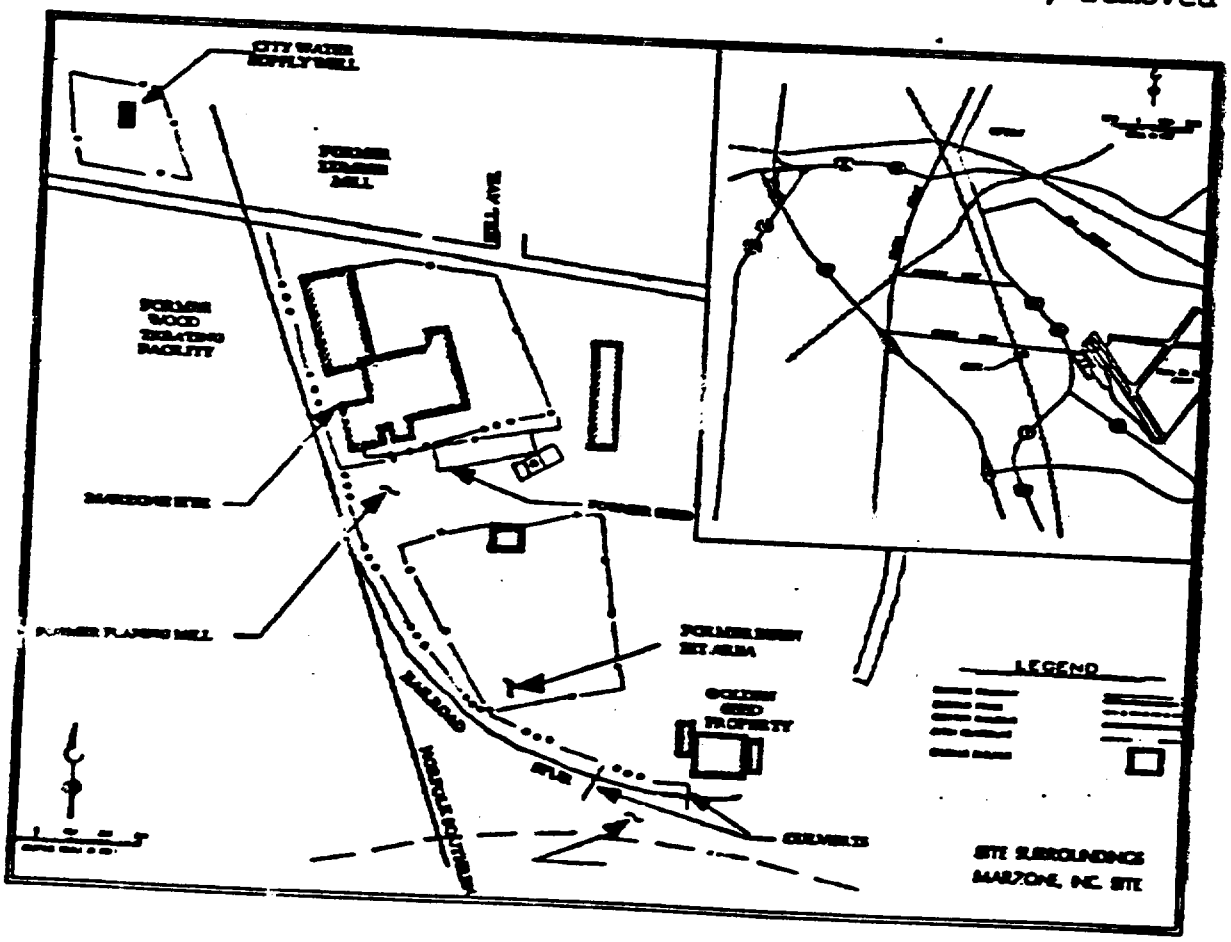

Figure 1
Map of Marzone Site

waste from the rinsate pond. Marzone reported that they removed 35 tons of sludge from the rinsate pond area. The rinsate pond was filled with compacted topsoil and clay. Analyses of the sludge samples identified atrazine, lead, and arsenic. An additional 5 tons of pesticide wastes were removed by Kova Fertilizer, Inc., under GaEPD's direction in March 1984. In September 1984, the EPA conducted an investigation at the Marzone Site. Analyses of soil and water samples collected at the Site, indicated that pesticides, including endurin, heptachlor, DDT, chlordane, toxaphene, atrazine, methyl and ethyl parathion, lindane, DDD, and malathion were still present in the soil and/or groundwater. In October 1984, based on the results of the investigation, EPA initiated response actions at the Marzone Site. Approximately 1,700 tons of waste were reportedly removed from the Site and disposed of at a permitted hazardous waste landfill. In May 1985, Chevron contracted with OH Materials Co. for an additional removal of contaminated materials from the rinsate pond and drainage ditches. Approximately 2,200 tons of material was removed during this action. These removal actions were conducted to abate substantial threats to human health and the environment. Residual risk of a lesser degree remained at the Site subsequent to the emergency removal actions.

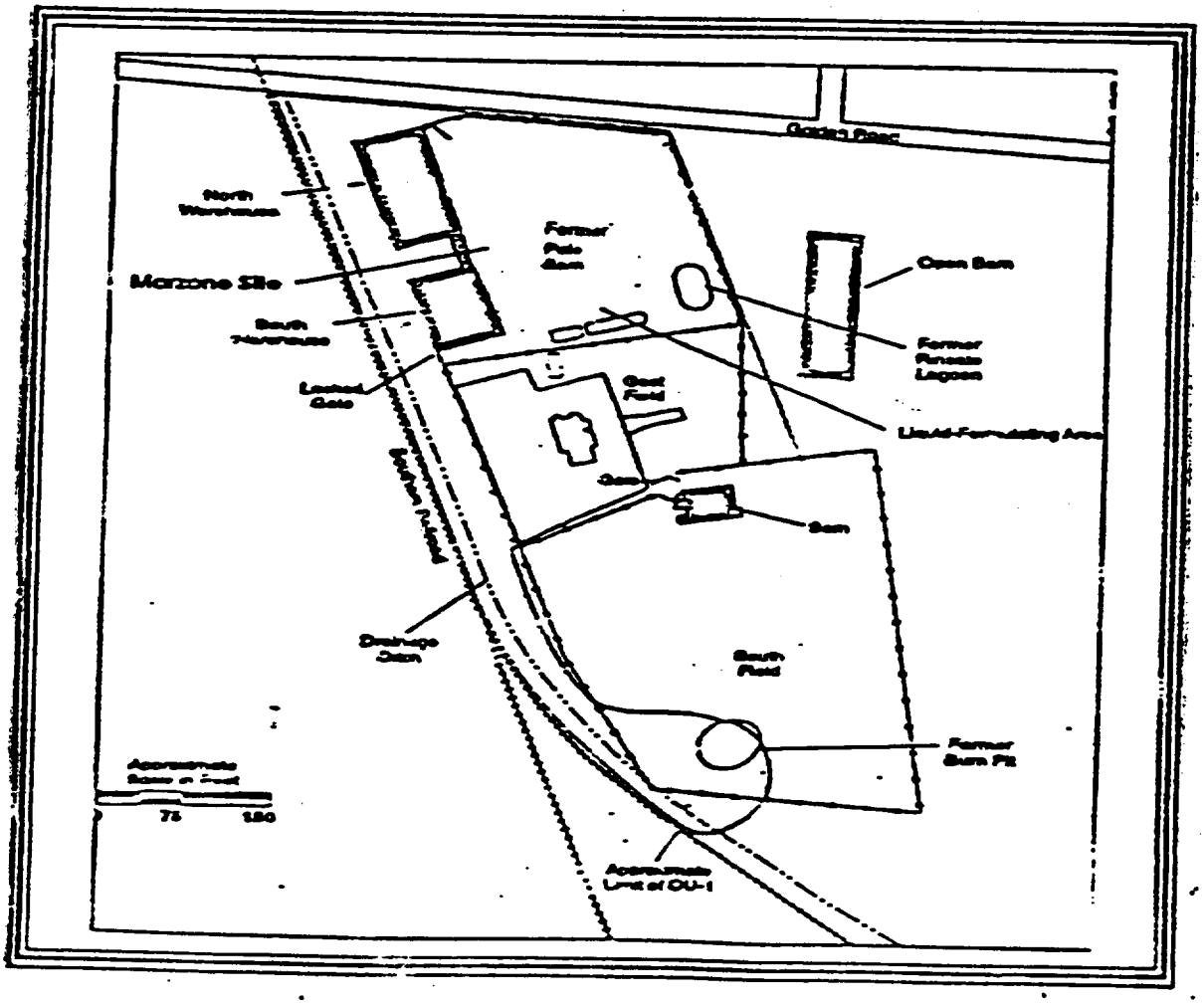

Figure 2
Site Layout

The Marzone, Inc./Chevron Chemical Company Site was proposed for the National Priorities List (NPL) in June 1988, and became final in August, 1989. In September 1990, Kova Fertilizer, Inc., Kova of Georgia, Chevron Chemical Company, and Billy G. Mitchell, signed an Administrative Order by Consent (AOC) with EPA for the Site. The AOC directed the PRPs to develop and implement a Remedial Investigation/ Feasibility Study (RI/FS) which identified the nature and extent of contamination and proposed remedial action for the Site. The RI report presented the methods, results, and conclusions of the investigation. The FS report included development, screening, detailed analysis, conclusions and recommendations for the Remedial Action Alternatives.

EPA issued its Record of Decision selecting the original remedy for the site in September 1994. EPA continued its enforcement activities by sending Special Notice Letters to those identified as potentially responsible for the contamination at the Site. None of the responsible parties were willing to enter into a Consent Decree (CD) agreeing to carry out the Remedial Design/Remedial Action (RD/RA). Accordingly, in July of 1995, EPA issued Unilateral Administrative Orders (UAOs) to implement the ROD to Chevron Chemical Company (Chevron) and Kova Fertilizer Inc. (Kova) to carry out the remedial design and the remedial action (RD/RA) at the site. After issuance of the UAOs, Chevron and Kova expressed interest in entering into a CD. A CD was lodged with the U.S. District Court, but was later withdrawn by the United States. Work at the Site continues under the UAO.

Remedial design began in September 1995. Early remedial actions such as site preparation and building demolition have been completed. Soil excavation and stockpiling has been completed, except in the railroad drainage ditch and former burn pit area.

3.0 Reasons for Issuing ROD Amendment

This ROD Amendment does not modify the results of the risk assessment or change the cleanup goals/action levels documented in the original ROD and the September 1996 amended proposed plan fact sheet. The purpose of this Amended ROD is to consider new information regarding the most effective soil remedy.

The major components of the original selected remedy provided for in the Record of Decision signed September 1994 include remedies for groundwater and soil. The major components of the groundwater remedy remain unchanged, including:

- The implementation of institutional contols,
- The design and construction of groundwater extraction wells,

- The installation of a security fence around the on-site treatment unit,
- The design and installation of a groundwater pumping system, a groundwater filtration system, an on-site treatment system, and an infiltration gallery,
- The start-up and operation of this system,
- The transportation, regeneration, recycling, and disposal of the spent filters, and
- The operation and maintenance of a long-term groundwater monitoring program. This includes quarterly monitoring of parameters in extraction wells and specified monitoring wells.

The major components of the amended soil remedy are:

- The excavation of all surface soil contamination (exclusive of the former burn pit area) above the performance standards,
- The excavation of subsurface soil to meet performance standards on a site-wide basis and, thus, achieve protection of groundwater,
- The transporation of the soil from the main portion of the site (exclusive of the former burn pit area) to a permitted landfill for offsite disposal,
- The placement of clean fill soil in the excavated areas, and
- Air monitoring to ensure safety of nearby residents and workers.

EPA's rationale for modifying the remedy selected in the original ROD is based on new information obtained during the Remedial Design phase. The modification involves changing the selected soil remedy for the major portion of the site (exclusive of the former burn pit area) to offsite dispoal.

4.0 Summary of Site Characteristics and Risks

Site characteristics and risks remain as described in the original ROD and the September 1996 amended proposed plan fact sheet. During the Remedial Design phase for the soil remediation, the community group, People Working for People, Inc. requested the Agency for Toxic Substance and Disease Registry (ATSDR) to review the operations of the proposed low temperature

thermal desorption unit. ATSDR made recommendations to EPA for additional monitoring and operational controls. The cost of implementing the recommendations significantly increased the projected cost of the thermal remedy. Due to this cost increase, EPA decided to consider other alternatives for the soil remedy.

5.0 Description of the Alternatives

EPA re-evaluated three possible alternatives identified in the Feasibility Study (FS) for cleaning up the soils from the major portion (exclusive of the former burn pit area) of OU#1 at the Marzone Site. The treatment alternatives of bioremediation and incineration were eliminated from re-evaluation, since the low temperature thermal desorption treatment alternative was previously selected as a better treatment alternative. The table on page 10 lists each alternative, the cost associated with each, and the time required to implement each one.

6.0 Summary of the Comparative Analysis of Alternatives

This section of the ROD amendment provides the basis for determining which alternative provides the best balance with respect to the statutory balancing criteria in Section 121 of CERCLA and in Section 300.430 of the NCP. The major objective of the original FS was to develop, screen, and evaluate alternatives for the remediation at the Marzone Site. Three alternatives were re-evaluated using the following nine evaluation criteria:

- Overall protection of human health and the environment.
- Compliance with applicable and/or relevant Federal or State public health or environmental standards.
- Long-term effectiveness and permanence.
- Reduction of toxicity, mobility, or volume of hazardous substances or contaminants through treatment.

ALTERNATIVE DESCRIPTIONS

Description of Alternatives	Cost *	Time to Implement
Alternative 1 - No Action The no action alternative is used as required by the National Contingency Plan (NCP), the regulation implementing the Superfund law. It is used as a baseline for comparing other alternatives. This alternative involves no active measures, so no capital costs would be required. Monitoring for a five-year review would be required.	$0	0 months
Alternative 2 - Institutional Controls This alternative uses deed restrictions and physical barriers to restrict access to the site. Deed restrictions could include zoning ordinances to prohibit construction on or use of the site while the soil remains contaminated. Physical barriers could include fencing and warning signs to prevent access to and use of the site. Monitoring for a five-year review would be required.	$0	2 months
Alternative 3 - Landfill Disposal This alternative includes landfill disposal of the excavated soil at a permitted landfill and backfill with clean soil.	$1.5 million **	2 months
Alternative 4 - Low Temperature Thermal Desorption On-site low temperature thermal desorption consists of a heated chamber which drives off contaminants from the soil. The contaminants in the gas stream are captured by an air pollution control system which utilizes baghouses, condensers, filters, and/or activiated carbon.	$4.3 million	6 months

* Costs to implement remedy in addition to costs incurred to date.

** For disposal in Subtitle D landfill

- Short-term effectiveness, i.e., the impacts a remedy might have on the community, workers, or the environment during the course of implementing it.

- Implementability, i.e., the administrative or technical capacity to carry out the alternative.

- Cost-effectiveness considering costs for construction, operation, and maintenance of the alternative over the life of the project, including additional costs should it fail.

- Acceptance by the State.

- Acceptance by the Community.

The NCP categorizes the nine criteria into three groups:

(1) Threshold Criteria - overall protection of human health and the environment and compliance with ARARs (or invoking a waiver) are threshold criteria that must by satisfied in order for an alternative to be eligible for selection;

(2) Primary Balancing Criteria - long-term effectiveness and permanence; reduction of toxicity, mobility, or volume; short-term effectiveness; implementability, and cost are primary balancing factors used to weigh major trade-offs among alternative hazardous waste management strategies; and

(3) Modifying Criteria - state and community acceptance are modifying criteria that are formally taken into account after public comment is received on the proposed plan and incorporated in the ROD amendment.

The selected alternative must meet the threshold criteria including compliance with all ARARs or be granted a waiver for compliance with ARARs. Any alternative that does not satisfy both of these requirements is not eligible for selection. The Primary Balancing Criteria are the technical criteria upon which the detailed analysis is primarily based. The final two criteria, known as Modifying Criteria, assess the public's and the state agency's acceptance of the alternative. Based on these final two criteria, EPA may modify the remedial action.

The following analysis is a summary of the evaluation of alternatives considered for remediating the major portion (exclusive of the former burn pit area) of the Marzone Site under each of the criteria.

Threshold Criteria

6.1 Overall Protection of Human Health and the Environment

Contamination which could pose a threat to human health or the environment is present in the stockpiled surface and subsurface soil (exclusive of the former burn pit area) of OU#1 of the Marzone Site. The soil poses a direct exposure risk to people. The no action alternative would not provide protection from the direct exposure risks. Because the no action does not meet a threshold criteria, it will not be carried forward in the evaluation.

Alternative 2 (institutional controls) would restrict access to the site and prohibit future uses which could result in direct exposure. Alternative 3 (offsite disposal) and alternative 4 (low temperature thermal desorption) provide protection by reducing risk levels through disposal or treatment of contaminated soil.

6.2 Compliance with ARARs

Alternatives 2,3 and 4 would be implemented to comply with all ARARs. No waivers from ARARs would be required.

Primary Balancing Criteria

6.3 Long-Term Effectiveness and Permanence

Alternative 2 does not provide long-term effectiveness or permanance, since contaminated soil would remain stockpiled on-site. Alternative 3 provides an effective remedy because it removes contaminated soil so that action levels are met. The contaminated soil would be disposed offsite in a permitted landfill and replaced with clean backfill. The LTTD alternative is a more permanent remedy, since pesticides and other organic contaminants are removed from the soil.

6.4 Reduction of Toxicity, Mobility or Volume Through Treatment

Under alternatives 2 and 3, toxicity, mobility and volume through treatment would not be reduced. However, alternative 3 would reduce mobility by placing contaminated soil into a regulated landfill. Alternative 4 would remove toxicity, eliminate mobility, and possibly reduce volume through treatment.

6.5 Short-Term Effectiveness

All alternatives would be implemented with measures to protect workers and residents from airborne dust and emissions. Workers would also be protected from direct contact with the soil. Additional steps would be taken to reduce noise, truck traffic

and other nuisances. Alternatives 2 and 3 could be implemented most quickly and, therefore, would have more short-term effectiveness.

6.6 Implementability

Alternative 2 can be easily implemented using administrative and legal procedures and proven construction methods. Alternative 3 uses proven equipment and construction methods and could be completed within 8 to 12 weeks. Alternative 4 involves specialized equipment and controls. Such equipment is available, but requires more extensive mobilization than Alternative 3. Alternative 4 could be completed in 6 to 9 months.

6.7 Cost

The cost for each alternative is provided in the table on page 10.

Modifying Criteria

6.8 State Acceptance

The State of Georgia has concurred on this amendment to the selected remedy (Appendix B).

6.9 Community Acceptance

EPA has selected off-site disposal as the remedy for the former burn pit area. Comments received during the public comment process for the proposed plan for this amended ROD were considered in the remedy selection process. A Responsiveness Summary is attached to this amended ROD which provides EPA's response to comments received on the Proposed Plan for the amended remedial action.

7.0 Selected Remedy

Based upon the Administrative Record, consideration of the requirements of CERCLA, the NCP, the detailed analysis of alternatives and public and state comments, EPA has selected an amended remedy for OU 1 of this site. The selected cleanup alternative to reduce to levels protective of human health and the environment risks posed by contamination found at the major portion (exclusive of the former burn pit area) of the Marzone Site is Alternative 3 - Landfill Disposal. This remedy involves hauling excavated soils which exceed the performance standards (exclusive of the former burn pit area) from OU 1 to a permitted waste disposal facility for offsite disposal. The excavated area will be backfilled with clean soil. The soil will be placed in either a RCRA Subtitle D or Subtitle C landfill, depending on the soil characteristics.

This remedy will protect human health and the environment by removing soil above the clean-up level, and disposing of the soil in a permitted landfill. ARARs can be easily met. Although this remedy will not reduce toxicity and volume through treatment,

mobility will be reduced by placing contaminated soil in a regulated landfill. The selected remedy is easily implemented and is cost effective.

Performance Standards

The selected remedy will achieve the cleanup levels specified in the original ROD. All activities shall comply with ARARs, and state standards. Testing methods approved by EPA will be used to determine that the cleanup levels have been achieved.

All remedial activities shall comply with applicable or relevant and appropriate requirements (ARARs), including, but not limited to RCRA and Land Disposal Restrictions. Results of testing specified by regulations under RCRA will be used to determine whether the soil will be placed in a Subtitle C or Subtitle D landfill.

8.0 Statutory Determination

Under its legal authorities, EPA's primary responsibility at Superfund sites is to undertake remedial actions that achieve adequate protection of human health and the environment. In addition, Section 121 of CERCLA establishes several other statutory requirements and preferences. These specify that, when complete, the selected remedy must meet appropriate environmental standards established under Federal and State environmental laws unless a statutory waiver is justified. The selected remedy also must be cost-effective and utilize permanent solutions and alternative treatment technologies or resource recovery technologies to the maximum extent practicable. Finally, the statute includes a preference for remedies that employ treatment that permanently and significantly reduce the volume, toxicity, or mobility of hazardous wastes as their principal element. The amended remedy meets the statutory requirements and preferences of Section 121 of CERCLA as further explained below.

8.1 Protection of Human Health and the Environment

The selected remedy protects human health and the environment through removal and disposal of the contaminated soil (exclusive of the former burn pit area) and treatment of contaminated groundwater at the site. The selected remedy provides protection of human health and the environment by eliminating, reducing, and controlling risk through treatment, engineering controls and/or institutional controls.

8.2 Attainment of the Applicable or Relevant and Appropriate Requirements (ARARs)

Remedial actions performed under CERCLA, as amended by SARA, must comply with all applicable or relevant and appropriate requirements (ARARs) unless a waiver is justified. All alternatives considered for the site were evaluated on the basis of the degree to which they complied with these requirements. The selected alternative was found to attain ARARs.

ARARs for the major portion (exclusive of the former burn pit area) of the Marzone Site are found in Tables 2, 3, and 4.

8.3 Cost Effectiveness

Cost effectiveness is determined by comparing the cost of all alternatives being considered with their overall effectiveness to determine whether the costs are proportional to the effectiveness achieved. The cost for the selected remedy is estimated to be $1.5 million, in addition to costs already expended (for remedial design, site preparation and excavation) if a Subtitle D landfill is appropriate for disposal. If testing results indicate that the contaminated soil must be placed in a Subtitle C landfill, the costs could be $ 10,300,000.

This remedy is as protective as the low temperature thermal desorption alternative. This factor, as well as the ease of implementing this remedy make it a reasonable value.

8.4 Utilization of Permanent Solutions to the Maximum Extent Practicable

EPA has determined that the selected remedy provides the best balance among the nine evaluation criteria for the alternatives evaluated. The selected combination provides protection of human health and the environment and is cost effective. The remedy, when complete, will provide a high degree of permanence. The remedy represents the maximum extent to which permanent solutions and treatment can be practicably utilized to remediate the major portion (exclusive of the former burn pit area) of OU 1 of the Marzone Site.

8.5 Preference for Treatment as a Principal Element

The statutory preference for treatment will not be met by this selected remedy for the above stated reasons.

9.0 Documentation of Significant Changes

None identified.

TABLE 2: FEDERAL ARARs FOR MARZONE SITE OU1

CLEAN WATER ACT - 33 U.S.C. §§ 1251-1376

	CITATIONS		COMMENTS
R & A	40 CFR Part 131 Ambient Water Quality Criteria Requirements	Chemical Specific for groundwater	Provides for the establishment of water quality based on toxicity to aquatic organisms and human health.
R & A	40 CFR Part 141 National Primary Drinking Water Regulations	Chemical Specific for groundwater	Establishes primary drinking water regulations pursuant to Section 1412 of the Public Health Service Act, as amended by the Safe Drinking Water Act; and related regulations applicable to public water systems.
R & A	40 CFR Part 142 National Primary Drinking Water Regulations Implementation	Chemical Specific for groundwater	Sets forth Sections 1413-1416, 1445, and 1450 of the Public Health Service Act, as amended.
R & A	40 CFR Part 143 National Secondary Drinking Water Regulations	Chemical Specific for groundwater	Establishes National Secondary Drinking Water Regulations pursuant to Section 1412 of the Safe Drinking Water Act, as amended (42 U.S.C. 300g-1); and controls contaminants in drinking water that primarily affect the aesthetic qualities relating to the public acceptance of drinking water.
A	40 CFR Part 144 Underground Injection Control	Action Specific for groundwater	Set forth requirements for the Underground Injection Control (UIC) program promulgated under Part C of the Safe Drinking Water Act.

TABLE 2: FEDERAL ARARs FOR MARZONE SITE OU1

	RESOURCE CONSERVATION AND RECOVERY ACT - 42 U.S.C. §§ 6901-6987		
	CITATIONS		**COMMENTS**
A	40 CFR Part 261 Identification and Listing of Hazardous Waste	Action Specific for Soil	Identifies those solid wastes which are subject to regulation as hazardous wastes. Defines the term "solid waste" and "hazardous waste".
R & A	40 CFR Part 262 Standards Applicable to Generators of Hazardous Waste	Action Specific for Soil	Establishes standards for generators of hazardous waste.
A	40 CFR Part 263 Standards Applicable to Transporters of Hazardous Waste	Action Specific for Soil	Establishes the responsibilities of generators and transporters of hazardous waste in the handling, transportation, and management of that waste.
R & A	40 CFR Part 264 Standards for Owners and Operators of Hazardous Waste Treatment, Storage, and Disposal (TSD) Facilities.	Action Specific for Soil	Establishes minimum national standards which define the acceptable management of hazardous waste for owners and operators of facilities which treat, store, or dispose of hazardous waste.
R & A	40 CFR Part 268 Land Disposal Restrictions	Chemical Specific for Soil	Identifies hazardous wastes that are restricted from land disposal and describes those circumstances under which an otherwise prohibited waste may be land disposed.
A	Federal Register/Vol. 58 February 16, 1993 40 CFR Part 260 et al Corrective Action Management Units and Temporary Units; Corrective Action Provisions; Final Rule	Action Specific for soil and groundwater	Finalizes provisions for corrective action management units (CAMUs) and temporary units under Subpart S of 40 CFR Part 264. Defines the term "remediation waste".
R & A	40 CFR Part 270 EPA Administered Permit Programs: Hazardous Waste Permit Program	Action Specific for Soil	Establishes provisions for the Hazardous Waste Permit Program under Subtitle C of the Solid Waste Disposal Act.

TABLE 2: FEDERAL ARARs FOR MARZONE SITE OU1

A -------- APPLICABLE REQUIREMENTS WHICH WERE PROMULGATED UNDER FEDERAL LAW TO SPECIFICALLY ADDRESS A HAZARDOUS SUBSTANCE, POLLUTANT, CONTAMINANT, REMEDIAL ACTION LOCATION OR OTHER CIRCUMSTANCE AT OU1 OF THE MARZONE SITE.

R & A----RELEVANT AND APPROPRIATE REQUIREMENTS WHICH WHILE THEY ARE NOT "APPLICABLE" TO A HAZARDOUS SUBSTANCE, POLLUTANT, CONTAMINANT, REMEDIAL ACTION, LOCATION, OR OTHER CIRCUMSTANCE AT OU1 OF THE MARZONE SITE, ADDRESS PROBLEMS OR SITUATIONS SUFFICIENTLY SIMILAR TO THOSE ENCOUNTERED AT OU1 OF THE MARZONE SITE THAT THEIR USE IS WELL SUITED TO THE SITE.

TABLE 3: STATE ARARs FOR MARZONE SITE OU1

	CITATIONS		COMMENTS
A	Georgia Drinking Water Regulations, Chapter 391-3-5	Chemical and Location Specific for groundwater	Establishes rules and regulations for Georgia drinking water standards and addresses wellhead protection zones.
A	Rules of the Georgia Department of Natural Resources Environmental Protection Division, Chapter 391-3-15	Action Specific for Soil	Provides rules for the Underground Storage Tank Program. GaEPD has not set soil action levels for contaminants other than petroleum hydrocarbons.
A	Georgia Water Quality Control Regulations and Standards	Action and Chemical Specific for runoff	Establishes Georgia surface water quality criteria.

A ------APPLICABLE REQUIREMENTS WHICH WERE PROMULGATED UNDER FEDERAL LAW TO SPECIFICALLY ADDRESS A HAZARDOUS SUBSTANCE, POLLUTANT, CONTAMINANT, REMEDIAL ACTION LOCATION OR OTHER CIRCUMSTANCE AT OU1 OF THE MARZONE SITE.

R & A --RELEVANT AND APPROPRIATE REQUIREMENTS WHICH WHILE THEY ARE NOT "APPLICABLE" TO A HAZARDOUS SUBSTANCE, POLLUTANT, CONTAMINANT, REMEDIAL ACTION, LOCATION, OR OTHER CIRCUMSTANCE AT OU1 OF THE MARZONE SITE, ADDRESS PROBLEMS OR SITUATIONS SUFFICIENTLY SIMILAR TO THOSE ENCOUNTERED AT OU1 OF THE MARZONE SITE THAT THEIR USE IS WELL SUITED TO THE SITE.

TABLE 4: TO-BE-CONSIDERED (TBCs) DOCUMENTS FOR MARZONE SITE OU1

DOCUMENT TYPE	DESCRIPTION
USEPA, Office of Drinking Water, Drinking Water Regulations and Health Advisories, Washington, D.C., December 1993	Issues health advisories based on exposure to various concentrations of chemicals of concern.

TBCs — TO-BE-CONSIDERED CRITERIA ARE NOT PROMULGATED ADVISORIES AND GUIDANCE THAT ARE NOT LEGALLY BINDING, BUT SHOULD BE CONSIDERED IN DETERMINING THE NECESSARY LEVEL OF CLEANUP FOR PROTECTION OF HEALTH OR THE ENVIRONMENT.

APPENDIX A

RESPONSIVENESS SUMMARY

RESPONSIVENESS SUMMARY
MARZONE INC./CHEVRON CHEMICAL COMPANY SUPERFUND SITE
OPERABLE UNIT ONE
TIFTON, TIFT COUNTY, GEORGIA

The U.S. Environmental Protection Agency (EPA) held a public comment period from April 1, 1997 through May 1, 1997 for interested parties to give input on EPA's proposed plan for a Record of Decision (ROD) amendment for Operable Unit 1 (OU 1) of the Marzone Inc./Chevron Chemical Company (Marzone) Superfund Site in Tifton, Tift County, Georgia. EPA conducted a public meeting on April 17, 1997 at the J.T.Reddick Middle School in Tifton, Georgia. The meeting presented the proposed remedy change for OU 1 and gave the public the opportunity to formally comment on the proposed plan. In addition, EPA held an informal open house at the Neighborhood Service Center on April 19, 1997 to give community members an opportunity to ask questions. The open house was advertised in the Tifton Gazette on April 25, 1997 and in the Gazette Lite on April 28, 1997. The public comment period was extended until June 2, 1997 after EPA received a request for an extension. Extension of the comment period was announced on May 3, 6, and 13 in the Tifton Gazette.

A responsiveness summary is required to document how EPA addressed citizen comments and concerns about the Site, as raised during the public comment period. All comments summarized in this document have been factored into this decision for remedial action for OU 1 of the Marzone site.

This responsiveness summary is divided into the following sections.

I. Overview - This section discusses the recommended alternative for remedial action and the public reaction to this alternative.

II. Background on Community Involvement and Concerns - This section provides a brief history of community interest and concerns regarding the site.

III. Summary of Major Questions and Comments Received During the Public Comment Period and EPA's Responses - This section presents comments submitted during the public comment period and provides the responses to these comments.

IV. Concerns to be Addressed in the Future - This section discusses community concerns of which EPA should be aware during remedial design.

I. Overview

The remedial alternatives for the amended ROD were presented to the public in a Proposed Plan released on March 28, 1997 to a mailing list of 600. Public notices were placed in the Tifton Gazette on March 31, 1997 and April 14, 1997 and in the Gazette Lite on April 2, 1997 and April 19, 1997. A public meeting was held April 17, 1997 with over 100 people attending.

EPA has organized work at this site into two phases or operable units (OUs). OU 1 involves contamination on the former pesticide production facility, part of the property adjacent to the formulation area, and part of the adjacent railroad drainage ditch, as well as contaminated groundwater related to the Site. This first operable unit is divided into two separate remedies, one for groundwater and the other for soil.

For contaminated groundwater, the remedy remains unchanged from that selected in the original ROD. This remedy is groundwater pump and treat with reinjection through an infiltration gallery.

For soil contamination, the selected remedy in the original ROD was low temperature thermal desorption (LTTD). During the Remedial Design phase for the soil remediation, the community group, People Working for People, Inc. (PWP) requested the Agency for Toxic Substance and Disease Registry (ATSDR) to review the operations of the proposed LTTD unit. ATSDR made recommendations to EPA for additional monitoring and operational controls which significantly increased the projected cost of the thermal remedy. Due to this cost increase, EPA decided to consider other alternatives for the soil remedy.

The preferred remedy presented to the public in the proposed plan for an amended ROD was Alternative 3 - Landfill Disposal. This is the final selected remedy for the soil (exclusive of the former burn pit area) at OU 1 of the site. This remedy involves hauling excavated soils which exceed the performance standards (exclusive of the former burn pit area) from OU 1 to a permitted waste disposal facility for offsite disposal. The excavated area will be backfilled with clean soil. The contaminated soil will be placed in either a Subtitle D or Subtitle C landfill, depending on the soil characteristics. The cost is estimated to be $1.5 million for disposal in a Subtitle D landfill and $10.3 million for disposal in a Subtitle C landfill.

Many of the community's concerns were related to health issues from possible exposure to either the Marzone site or other toxic waste sites in Tifton. Of the comments that were related to EPA's proposed change to the original ROD, several community members expressed concern that contaminated soil from the site could be place in a Subtitle D landfill. Community members also expressed concern regarding possible exposure to dust and other contamination during truck transport of the soil.

II. Background on Community Involvement and Concerns

From 1991 until 1994, EPA held several public meetings and availability sessions to discuss with the community the original proposed plan and the South Tift County Environmental Justice Initiative.

The remedial alternatives for this amended ROD were presented to the public in a Proposed Plan released on March 28, 1997 to a mailing list of 600. Public notices were placed in the Tifton Gazette on March 31, 1997 and April 14, 1997 and in the Gazette Lite on April 2, 1997 and April 19, 1997. EPA held a public comment period from April 1, 1997 through May 1, 1997 for interested parties to give input on EPA's proposed plan for a Record of Decision (ROD) amendment for Operable Unit 1 (OU 1) of the Marzone site. EPA conducted a public meeting on April 17, 1997 at the J.T.Reddick Middle School in Tifton, Georgia. The meeting presented the proposed remedy change for OU 1 and gave the public the opportunity to formally comment on the proposed plan. Over 100 people attended the public meeting.

In addition, EPA held an informal open house at the Neighborhood Service Center on April 19, 1997 to give community members an opportunity to ask questions. The open house was advertised in the Tifton Gazette on April 25, 1997 and in the Gazette Lite on April 28, 1997. The public comment period was extended until June 2, 1997 after EPA received a request for an extension. Extension of the comment period was announced on May 3, 6, and 13 in the Tifton Gazette.

The administrative record was available to the public at both the information repository maintained at the Tifton and Tift County Libraries and at the EPA Region IV Library at 61 Forsyth Street in Atlanta, Georgia. The notice of availability of the proposed plan and the administrative record was published in the Tifton Gazette on March 31, 1997 and April 14, 1997 and in the Gazette Lite on April 2, 1997 and April 19, 1997.

III. Summary of Major Questions and Comments Received During the Public Comment Period and EPA's Responses

Comment 1: One PRP stated that it supported the proposed remedy of landfill disposal because ATSDR's insistence upon an effective zero risk standard for low temperature thermal desorption (LTTD) makes the current remedy prohibitively expensive and no technology was available to meet ATSDR's requirements. Many of ATSDR's recommendations fall outside the proven design and operational envelope of the selected LTTD unit. Landfill disposal is a proven, quick and effective way of cleaning the Marzone site.

EPA Response: EPA agrees that the cost of implementation of ATSDR's recommendations made LTTD no longer cost effective and that many of the recommendations were outside the design and operational parameters for the selected LTTD unit. However, EPA believes that LTTD technology is available which could meet ATSDR's requirements. EPA agrees that landfill disposal is a proven, quick and effective method for remediating the Marzone soil.

Comment 2: Two commenters expressed support for landfill disposal, since it would result in the faster cleanup of the Marzone soil. One of these commenters (a contractor for the PRP) stated that many residents of Tifton have told the commenter that they simply want to see the site cleaned up.

EPA Response: EPA agrees that landfill disposal would be the fastest method to clean up the Marzone soil.

Comment 3: One commenter expressed concern that fill dirt would be obtained from a source in Tift County which the commenter had heard was contaminated.

EPA Response: The soil from this source has been tested for contaminants of concern and dioxin. Levels of all contaminants were below EPA's action levels. The soil will be tested again for a wider range of possible contaminants before the soil is brought to the site.

Comment 4: One commenter asked where permitted landfills are located in Georgia, do the landfills control dioxin, what protections will be taken for the community while the soil is being transported, and what community will be impacted by landfill disposal of the contaminated soil.

EPA Response: Almost 40 EPA-permitted Subtitle D (non-hazardous) landfills are located in Georgia. No Subtitle C (hazardous) landfills are located in Georgia. Contamination placed in permitted landfills is controlled by liners or other groundwater controls, run-on and run-off controls, and monitoring systems. Soil must be tested for hazardous characteristics before placement in a landfill. Soils which are deemed hazardous must be placed in a Subtitle C landfill.

During the transport of soil from Marzone to a permitted landfill, real-time and 24-hour air monitoring will take place. If, at any time, the air monitoring indicates that particulates or contaminant levels are rising, additional protective measures, such as wetting the soil, covering the soil, or stopping work, will be taken. The trucks carrying the soil will be lined with plastic which will cover the top of the load and covered with a tarp to prevent soil from blowing or falling out of the truck.

A landfill will be selected which will have minimal impact on near-by communities. No adverse health impacts will occur, since

all laws and regulations regarding landfill disposal will be met in placing the soil in a landfill.

Comment 5: One commenter stated that EPA should insist upon implementation of the ATSDR recommendations for LTTD operation.

EPA Response: Implementation of the ATSDR recommendations would increase the cost of the remedy so that it is no longer cost effective.

Comment 6: Two commenters stated that LTTD is the best alternative for cleanup since it results in a permanent solution. These commenters stated that landfill disposal should only be utilized if the soil is placed in a Subtitle C (hazardous waste) landfill. The removal and transportation of soils for landfilling should be designed to eliminate all possibilities of additional contamination threats and to ensure safety.

EPA Response: EPA agrees that LTTD would provide a more permanent solution for the Marzone soil cleanup. However, landfill disposal will be protective of human health and the environment and has become significantly more cost-effective.

As stated above, all laws and regulations regarding landfill disposal must be met in placing the soil in a landfill. If the soil is determined to be hazardous, it will be placed in a RCRA Subtitle C landfill. If the soil is deemed non-hazardous, it will be placed in a RCRA Subtitle D landfill.

Protective measures which will be implemented during the transporting of soil are described in response 4.

Comment 7: One commenter stated that the proposed plan does not address the clean-up of the former burn pit area, which is the most toxic part of the Marzone site. This plan should not be implemented until the burn pit area is addressed.

EPA Response: An amended proposed plan including cleanup of the former burn pit area was issued in September 1996. EPA has not prepared a final Record of Decision amendment for the former burn pit area. The current proposed plan does not include the former burn pit area and that area will not be a part of this action. The former burn pit area will be cleaned up in a separate action.

Comment 8: One commenter stated that EPA determined that offsite disposal to a landfill was unsafe in 1994.

EPA Response: When EPA issued the Record of Decision in September 1994, it selected low temperature thermal desorption as the best soil remedy. In the feasibility study, offsite disposal to a landfill was carried forward as one of the better alternatives. EPA never determined that offsite disposal was unsafe.

Comment 9: The same commenter stated that soil from Marzone will be disposed in a landfill located in a "people of color" community.

EPA Response: EPA has not made a final decision on which landfill will receive the soil from Marzone. All landfills under consideration are regulated by the States or by EPA under the Resource Conservation and Recovery Act (RCRA) and must be in compliance with the regulations. Neighboring communities will not be placed at any additional risk by placement of the Marzone soil into the landfill.

Comment 10: The same commenter stated that EPA has said that the Marzone soil is hazardous and is now saying that it can be placed in a non-hazardous landfill.

EPA Response: EPA has not made a final decision on what type of landfill will receive the Marzone soil. The soil at Marzone is contaminated with chemicals at levels which can cause adverse health effects after long-term exposure. The soil from Marzone will be tested using the RCRA criteria and procedures to determine whether the soil will be placed in a hazardous or non-hazardous landfill.

Comment 11: The same commenter stated that EPA is proposing a change of the remedy to offsite disposal only for cost reasons.

EPA Response: The recommendations made by ATSDR for the LTTD unit increased the projected costs of the LTTD remedy, so that it was no longer cost-effective. Landfill disposal will provide a fully protective remedy which can be implemented faster and more cost-effectively.

Comment 12: The same commenter stated that contamination from the trucks will move into streets, yards, and houses in Tifton.

EPA Response: EPA expects the following precautions to be taken. After the trucks are loaded, they would be driven to an asphalt decontamination pad. The plastic liner in the truck bed would be folded over the top of the soil. A transport tarp would be placed over the liner. The trucks would be inspected and any visible soil would be brushed or washed from the truck body and tires. Soil from the decontamination pad would be placed back into the soil stockpile. Water from the pad would be treated in the onsite water treatment system. These measures would be designed to prevent contamination from being carried into the community.

Comment 13: The same commenter stated that in 1994 EPA said that it would take three years to clean the soil. The three years became 18 months and now has become six months.

EPA Response: The 1994 estimate included design and implementation time under EPA's traditional approach to

conducting remedial design/remedial action activities. The 18 month estimate was based on a more efficient approach to design and implement the remedy. The estimate for landfill disposal is only six months because much of the design and site preparation work has been completed, including most of the soil excavation work.

Comment 14: One commenter asked how EPA will get all of the contamination out of the soil. Another commenter stated that contamination was poured in a hole at a depth of 14 feet.

EPA Response: Soil has been excavated to a depth of seven feet. This excavation removed all surface soil with contamination above the EPA cleanup levels and removed all subsurface soil which would result in further contamination of groundwater. Groundwater at the Marzone site is found at seven feet below ground surface. Contamination below a depth of seven feet will be removed during the groundwater remediation.

Comment 15: One commenter stated that high levels of dioxin are present at the Marzone site.

EPA Response: Levels of dioxin in the former burn pit area were found above EPA's proposed action level. EPA issued a proposed plan for a Record of Decision amendment for this area in September 1996. Levels in the remainder of the site are below EPA's proposed action level.

Comment 16: Three commenters stated that EPA has not addressed contamination in ditches and other areas across Golden Road from the Marzone site.

EPA Response: During the South Tifton Investigation, EPA sampled areas across Golden Road from the Marzone site. No contamination above levels of concern were found in these areas.

Comment 17: One commenter expressed concern that offsite disposal would harm her and her children through dust exposure.

EPA Response: During loading of the trucks and any other soil movement activities, the soil would be wetted, as necessary, to reduce dust. Numerous safety precautions should be taken to prevent dust exposure from trucks. These precautions are described in the response to comment 12. In addition, site workers would monitor the site interior and perimeter for particulates and would take additional corrective actions, including stopping work, to control dust.

Comment 18: One commenter expressed concern that the soil will be packed down, covered with cement, and left.

EPA Response: EPA is not considering an alternative such as described by the commenter.

Comment 19: One commenter stated that the truck traffic will disturb the neighborhood.

EPA Response: The operations will take place only during the day, probably starting after school begins, if transportation is conducted during the school season. Truck traffic will involve approximately three to six trucks per hour for ten hours per day. Traffic will be directed east on Golden Road to avoid most of the neighborhood area. A flagperson will direct trucks in and out of the site to minimize impacts on Golden Road traffic.

IV. Concerns to be Addressed in the Future

Several community members expressed concern regarding the former burn pit area. An amended proposed plan including cleanup of the former burn pit area was issued in September 1996. EPA has not prepared a final Record of Decision amendment for the former burn pit area. This area will be addressed after EPA issues a final ROD amendment for the former burn pit area.

APPENDIX B

STATE CONCURRENCE LETTER

5 9 0042

Georgia Department of Natural Resources
205 Butler Street, Suite 1154, Atlanta, Georgia 30334-4910
Lonnie C. Barnes, Commissioner
Environmental Protection Division
Harold F. Reheis, Director
Hazardous Waste Management Branch
Phone (404) 656-7802 FAX (404) 651-9425

June 19, 1997

Ms. Annie Godfrey
USEPA Region IV (4WDSSRB)
61 Forsyth Street
Atlanta, Georgia 30303

RE: Proposed amended record of decision for the Marzone Inc./Chevron Chemical Site, OU#1 area (Excluding The Burn Pit Area) Tifton, Tift County, Georgia

Dear Ms. Godfrey:

The Georgia Environmental Protection Division (GAEPD) has received and reviewed the above referenced document. The GAEPD concurs with the Environmental Protection Agency's proposed amendment to the Record of Decision (ROD) for the Marzone site as written for the following reasons:

1. The proposed change to the selected remedy for contaminated OU#1 soil (excluding the former burn pit area) would result in a more cost effective clean-up. In the original ROD (September 1994) Low Temperature Thermal Desorption (LTTD) and on site placement of treated soils was selected. Total estimated cost for this remedy was 4.8 million (later revised to 4.3 million). The original estimate for excavation and landfill disposal was 3 million. The cost for landfill disposal is now estimated at 1.5 million. This is a substantial reduction in clean-up cost while accomplishing clean-up objectives.

2. The proposed selected remedy will achieve clean-up levels specified in the original ROD.

3. The scope of the proposed changes includes only contaminated soil in the selected remedy, not the former burn pit area, nor the groundwater.

4. Although this selected remedy will not reduce the toxicity and the volume of contaminated soil through treatment, the ease of implementability and the cost effectiveness of this alternative while protecting human health and the environment make this alternative practical.

5. The selected remedy as amended complies with federal and state requirements.

It is for these reasons that the GAEPD agrees with EPA's proposed ROD amendment. If we can be of further assistance to you please contat Norman R. Woodburn at (404) 656-7802.

Sincerely,

Norman R. Woodburn for

Charles D. Williams
Unit Coordinator
Hazardous Waste Management Branch

File: Marzone/Chevron

r: norman\a.godfrey